

Financing of Arms Companies

Policies and Practices of Swiss Banks

Lennart van Loenen, Barbara Kuepper and Jeroen Walstra

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About this report

This report has been commissioned by the *Bündnis für ein Verbot von Kriegsgeschäften*, a coalition of Swiss civil society organisations. It is a report on the policies and practices of Credit Suisse, UBS, and Swiss National Bank (SNB) in relation to arms companies.

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Authorship

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Summary

This report provides an assessment of the arms policies of three Swiss banks - Credit Suisse, UBS, and the Swiss National Bank (SNB) - and an analysis of the financial ties between the banks and 43 arms companies selected by the *Bündnis für ein Verbot von Kriegsgeschäften*.

Overall, the research demonstrates that the arms policies disclosed by the three banks are weak. The policies hardly go beyond the minimum requirements of the Swiss Act on War Materials. The banks have exclusion policies in place for the financing of some, but not all, types of controversial weapons, and significant limitations in scope exist for Credit Suisse and UBS. The policies are overall lacking in attention to, or requirements for, invested companies' involvement in controversial forms of arms trade.

This study analyses financial relationships between the three banks and the selected companies through credit, including loans and underwriting services, as well as investments in shares and bonds. It finds that Credit Suisse, UBS and SNB financed 32 of the 43 selected arms companies. Credit Suisse and UBS are involved in the form of credit and investment, SNB only through investment.

Credit Suisse and UBS provided credit to six of the 43 arms companies with a total value of US\$ 4.4 billion. Credit Suisse provided the largest amount (US\$ 3.8 billion), while UBS provided US\$ 628 million. The consolidated amount of credit provided by Credit Suisse and UBS represents 97% of the total credit provided by Swiss financial institutions to the selected arms companies, and almost 1% of all the credit provided by financial institutions globally to these arms companies.

As regards investments, the three Swiss financial institutions invested in securities of 32 of the 43 arms companies, with a total value of US\$ 8.9 billion. UBS invested the largest amount (US\$ 5.6 billion), followed by SNB (US\$ 2.0 million) and Credit Suisse (US\$ 1.4 billion). Among the 113 Swiss financial institutions that invest in the selected arms companies, UBS, SNB, and Credit Suisse are the three largest investors with a consolidated share of 82%. The combined share of Credit Suisse, SNB, and UBS in the identified global investments in the selected arms companies amounts to 1.4%.

Based on the assessment of the banks' policies and practices, recommendations for key issues to consider in an adequate policy are provided. The banks should develop and publish a comprehensive exclusion policy on controversial arms development, production, and trade that applies to all group subsidiaries and geographies and to all financial services, including investments managed by external asset managers and index funds. Laws and bans cannot replace the own responsibility to avert investments in controversial arms companies. Therefore, a comprehensive methodology to assess and identify which producers are involved in controversial arms production and to which countries arms trade can be considered controversial should be developed and transparently implemented.

Abbreviations

AuM	Assets under Management
DGA	French Directorate General of Armaments
ESG	Environmental, Social and Governance (factors)
EU	European Union
GBSD	Ground Based Strategic Deterrence
ICBM	Intercontinental Ballistic Missile
LAWS	Lethal Autonomous Weapons Systems
LRSO	Long Range Standoff Weapon
MUT	Manned/Unmanned Teaming
NBC weapons	Nuclear, Biological and Chemical weapons
SIPRI	Stockholm International Peace Research Institute
SLBM	Submarine-Launched Ballistic Missiles
SNB	Swiss National Bank
UAV	Unmanned Aerial Vehicles
UCAS	Unmanned Combat Air System
UK	United Kingdom
UN	United Nations
U.S.	United States

Introduction

Arms are a fundamental barrier to sustainable development

The development, production, and trade in weapons poses a significant number of threats for global security, human rights, and sustainable development. Most obviously, since arms can kill, maim, and destroy, they are a threat to the most fundamental human right: the right to life.

Armed conflicts threaten the safety of millions of people around the world. Irresponsible arms transfer to conflict regions and oppressive regimes poses a major risk of contributing to and exacerbating conflicts, increasing political repression and human rights abuses.¹

Disproportionately high expenditures on arms, together with the high incidence of corruption associated with the arms trade, divert scarce funds away from basic social and economic development goals in low-resource countries. In this way, military expenditure by poor countries is inversely correlated with levels of economic development, and the current functioning of the arms industry is a major barrier to the achievement of the United Nations (UN) Sustainable Development Goals (SDGs).²

As one of the most controversial weapon systems, spending for the maintenance and expansion of nuclear weapons arsenals by a small number of countries is huge and increasing, while any use of nuclear weapons would be incompatible with the rules of international humanitarian law, in particular the principles of distinction, proportionality and precaution.³

Despite all these concerns, the Stockholm International Peace Research Institute (SIPRI) estimates that global military spending reached a total of US\$ 1.9 trillion in 2019, a year-on-year increase by 3.6%.⁴ The global arms trade reached a value of at least US\$ 95 billion in 2017.⁵ The world's nuclear-armed countries spent around US\$ 73 billion on their nuclear arsenals in 2019 alone, and expenditure is expected to further increase in coming years.⁶ This spending is, however, not considering the incalculable human and environmental cost of nuclear weapons.⁷

Arms companies are benefitting from lucrative contracts with often extended duration. Many of the companies are private businesses, and especially among the large players many are listed at stock exchanges.

Meanwhile, minimum standards are not met, namely that:

- no arms are produced which are prohibited by an international treaty or do not distinguish between combatants and non-combatants (i.e. which violate International Humanitarian Law);
- arms are not supplied to repressive regimes, fragile states, and non-state actors;
- corruption is strictly forbidden and transparency on arms transfers is improved;
- products and services supplied/sold do not affect the sustainable development of poor countries.

In absence of these structural changes, financial institutions are facing large corporate social responsibility (CSR) risks when financing this sector. They are exposed to the risk of financing companies linked to the production or maintenance of controversial weapons, corrupt practices, or trade with oppressive regimes. Therefore, it is of great importance that financial institutions implement strict policies to limit and guide their financial involvement in the arms industry and its associated risks.⁸

The Swiss context

The Swiss War Material Act (WMA) is meant to fulfil Switzerland's international obligations and the respect of its foreign policy principles. This aim is approached through controlling the manufacture and transfer of war material and related technology, while also maintaining an industrial capacity to maintain national defence.⁹

The Act prohibits the development, production, brokerage, acquisition, transfer, or trade in nuclear, biological, or chemical weapons (NBC weapons), anti-personnel mines and cluster munitions. Since 2013, the following rules on direct and indirect financing are in force:

- Direct financing of the development, manufacture or acquisition of prohibited war material is itself prohibited. Direct financing is defined as “[...] *the direct granting of credits, loans or gifts or comparable financial advantages in order to pay or advance costs and expenditures that are associated with the development, manufacture or acquisition of prohibited war material.*”
- The indirect financing of the development, manufacture or acquisition of prohibited war material is itself prohibited where the prohibition of direct financing is circumvented thereby. Indirect financing refers to:
 - participation in companies that develop, manufacture or acquire prohibited war material;
 - the acquisition of debt securities or other investment products issued by such companies.

These provisions leave room for interpretation, for example in relation to the provision of financing for general corporate purposes to a diversified company with activities also in the development or production of prohibited arms. Furthermore, the WMA does not exclude the financing of other types of controversial arms trade by Swiss financial institutions, such as the supply of weapons and other military goods to countries that:

- are under a UN or EU arms trade embargo;
- are unfree, that is authoritarian regimes and regimes involved in severe violations of human rights;
- where a significant risk exists that the weapons will be used to violate human rights;
- are involved in armed conflict;
- are failed or fragile states;
- are sensitive to corruption;
- spend a disproportionate part of their budget on arms purchase and consequently see poverty alleviation being compromised by military expenditure.

In the light of lacking regulatory measures in relation to arms production and trade, stricter provisions would consequently have to be included in the policies of financial institutions on own account.

The objective of this research is to provide an analysis of the arms policies and practices of three major Swiss banks –Credit Suisse, UBS, and the Swiss National Bank (SNB). It aims to give insight into whether the SNB, Credit Suisse and UBS apply international best practices regarding such financial relationships, as well as whether the banks provide financing to some of the world’s largest arms companies and arms companies involved in the production of controversial weapons.

Chapter 1 outlines the methodologies employed for the policy research and financial analysis. Chapter 2 discuss the results of the policy research and financial analysis for each bank. Chapter 3 provides short profiles of ten arms companies with which significant financial links were found. Chapter 4 draws conclusions and provides key recommendations.

1

Methodology

This Chapter outlines the methodology applied in this research. Section 1.2 explains the methods applied for the assessment of the financial institutions' finance and investment policies regarding the arms industry. Section 1.3 explains the approach to the company selection. The methods applied for the identification of financial relations between the three banks and the selected arms companies are outlined in Section 1.4.

1.1 Objective

The objective of this research is to provide an analysis of the policy and practice of the Swiss National Bank (SNB), Credit Suisse and UBS regarding investments in and financing of arms companies. It aims to give insight into whether the three banks apply international best practices regarding the arms sector, as well as whether the banks invest in some of the world's largest arms companies and arms companies involved in the production of controversial weapons.

1.2 Policy research

To evaluate the arms policies of the three banks, an assessment framework based on the policy assessment methodology of the Fair Finance Guide International (FFGI) was applied. This methodology was developed by Fair Finance International (FFI) in cooperation with Profundo and is based on key relevant international standards for sustainability and responsible investment.¹⁰

In the FFGI methodology, financial institutions' policies and commitments to international standards are assessed against a set of scoring criteria for a range of cross-cutting sustainability themes and sectors with significant sustainability risks. The criteria used in this research are based on the FFGI assessment criteria for the arms industry. The criteria are divided into three categories:

- General criteria relating to transparency on the policies;
- Criteria relating to controversial weapons and dual-use goods; and
- Criteria relating to controversial forms of arms trade.

In the policy assessment, both the content and the scope of the policy of the financial institution are considered. Points are awarded to the banks based on the policy content (establishing whether their policy complies with the requirements of an element), and policy scope (based on whether the policy applies to some or all of the banks' financing activities). The assessment considers publicly available policies only, including investment and finance policy documents, annual reports, websites, and governance documents that demonstrate compliance with particular elements.

The quality of the policy of the financial institutions is then expressed as a total score ranging from 1 (abysmal) to 10 (excellent), calculated by dividing the amount of points by the total number of assessment criteria.

Table 1 shows the assessment criteria that were used in the policy analysis. In this context, "unacceptable" means that a financial institution holds no shares or bonds in companies involved in these activities, and that it does not provide new loans and intends to withdraw or refuse to renew any outstanding loans to these companies.

Table 1 Assessment criteria for policy research

No.	Assessment criterion
<i>Transparency and accountability</i>	
1	The financial institution has published its policy regarding investment and financing.
<i>Controversial weapons and dual-use goods</i>	
2	Use, production, development, maintenance, testing, stockpiling of and trade in anti-personal landmines, including key components of landmines, is unacceptable.
3	Use, production, development, maintenance, testing, stockpiling of and trade in cluster munitions, including key components of cluster munitions, is unacceptable.
4	Use, production, development, maintenance, testing, stockpiling of and trade in nuclear weapons, including key components of nuclear weapons, in or to countries that have not ratified the Non-proliferation Treaty is unacceptable.
5	Use, production, development, maintenance, testing, stockpiling of and trade in nuclear weapons, including key components of nuclear weapons, is unacceptable
6	Use, production, development, maintenance, testing, stockpiling of and trade in chemical weapons, including key components of chemical weapons, is unacceptable.
7	Use, production, development, maintenance, testing, stockpiling of and trade in biological weapons, including key components of biological weapons, is unacceptable.
8	Use, production, development, maintenance, testing, stockpiling of and trade in lethal autonomous weapons systems (LAWS), including components designed for LAWS, is unacceptable.
9	Goods that are essential for military purposes, but that can also be used for civilian products ('dual-use' goods), are considered as military goods when they have a non-civilian purpose.
<i>Controversial arms trade</i>	
10	Supply of arms and weapon systems, military transport systems, and other military goods to countries that are under a United Nations or relevant multilateral arms embargo, is unacceptable.
11	Supply of arms and weapon systems, military transport systems, and other military goods is unacceptable if there is an overriding risk that the arms will be used for serious violation of international human rights and humanitarian law.
12	Supply of arms and weapon systems, military transport systems, and other military goods to countries that severely violate human rights, is unacceptable.
13	Supply of arms and weapon systems, military transport systems, and other military goods to parties involved in conflict is unacceptable, unless to parties acting in accordance with a UN Security Council resolution.
14	Supply of arms and weapon systems, military transport systems, and other military goods to countries that are sensitive to corruption, is unacceptable.
15	Supply of arms and weapon systems, military transport systems, and other military goods to countries having a failed or fragile state, is unacceptable.
16	Supply of arms and weapon systems, military transport systems, and other military goods to countries that spend a disproportionate part of their budget on purchases of arms, is unacceptable.

1.3 Company selection

A total of 43 leading weapons companies have been included in analysis for this report, many of which are included the SIPRI Top-100 list of the arms industry.¹¹ Moreover, many of the companies have been identified as being involved in the nuclear arsenal of the United States, the United Kingdom, France and India.¹²

The selection includes 41 international and four Swiss arms companies (including two Swiss companies with international parents). Companies for which no financial relationships with the three Swiss banks were identified are marked in italics.

- | | |
|---|---|
| 1. Aecom | 23. L3Harris Technologies |
| 2. Aerojet Rocketdyne | 24. Larsen & Toubro |
| 3. Airbus Group | 25. Leidos |
| 4. <i>Anhui Great Wall Military Industry Co.</i> | 26. Leonardo |
| 5. BAE Systems | 27. LIG Nex1 |
| 6. <i>Bechtel Corp.</i> | 28. Lockheed Martin Corp. |
| 7. Bharat Dynamics Limited | 29. Mitsubishi Heavy Industries |
| 8. Boeing | 30. <i>NORINCO</i> |
| 9. Booz Allen Hamilton | 31. Northrop Grumman Corp. |
| 10. BWX Technologies | 32. <i>Pilatus</i> |
| 11. <i>CASIC</i> | 33. <i>Poongsan</i> |
| 12. China Aerospace Science and Technology (CASC) | 34. Raytheon Technologies Corp. |
| 13. <i>Constructions Industrielles de la Méditerranée</i> | 35. Rheinmetall (including Rheinmetall Schweiz – Rheinmetall Defence) |
| 14. Elbit Systems | 36. Rolls-Royce |
| 15. Fluor Corp. | 37. <i>Rostec</i> |
| 16. General Dynamics Corp. (incl. Mowag) | 38. <i>RUAG</i> |
| 17. General Electric | 39. Safran |
| 18. Hanwha | 40. Serco Group |
| 19. Honeywell International | 41. Textron |
| 20. Huntington Ingalls Industries | 42. Thales |
| 21. <i>Hyderabad Precision</i> | 43. <i>Walchandnagar Industries</i> |
| 22. Jacobs Engineering | |

Profiles are provided for ten arms companies. These were selected based on a combination of criteria, including a sizeable exposure of the three banks as well as companies playing an important role in the international arms production sector. Five of the profiled companies were identified as receiving credit from Credit Suisse and UBS; nine companies received large investments from all three banks.

The profiles look at the companies' arms portfolio, notably in relation to an involvement in the production of controversial weapons. Next to NBC weapons, also the development of Lethal Autonomous Weapons Systems (LAWS) is evaluated as controversial. These weapon systems are connected to increasing levels of autonomy and an associated reduction in human involvement decision-making. Serious concerns relate to the question whether LAWS could ever meet the notions of 'proportionality' and 'distinction' in international humanitarian law.¹³ Furthermore, the profiles consider arms falling under restrictions for production or trade, as well as export relationships with states involved in conflict, fragile states, authoritarian regimes, or states with a high corruption risk.¹⁴ Examples of controversial arms trade links include:

- Afghanistan: ranks high on the list of fragile states (9th); authoritarian regime; very high risk of defence-related corruption.
- Bahrain: member of the Saudi-led coalition involved in the Yemen war since 2015; very low score on Freedom in the World Index 2020 ('not free', 11 out of 100 points); very high risk for corruption in the defence and security sector.
- Nigeria: ranks high on the list of fragile states (14th); very high risk of defence-related corruption.
- Saudi-Arabia: leads a multinational coalition which intervened in the conflict in Yemen in 2015, including air strikes; coalition's blockade of Yemen increased food insecurity of population in Yemen; very low score on Freedom in the World Index 2020 ('not free', 7 out of 100 points); very high risk of defence-related corruption.

These profiles are not meant as comprehensive overviews of contentious relationships, but rather as examples to illustrate the broad involvement of leading arms companies in controversial deals during recent years.

1.4 Analysis of financial relationships

Financial databases were searched to identify financial flows between the SNB, Credit Suisse and UBS and the selected companies, the ultimate parent (group) of the companies, and all relevant subsidiaries and finance vehicles within the group. The financial research consisted of the following activities:

- Creditors research:

This research primarily used financial databases Refinitiv and Bloomberg to identify the financial institutions providing loans and underwriting services to the selected companies. Additional sources consulted include financial databases IJGlobal and TradeFinance Analytics. Furthermore, annual reports, company websites and other company publications as well as media archives were searched for relevant information.

All historical loans that were closed before January 2018 and that had not yet matured at the time of researching were included in the report. Loans closed after January 2018 were included irrespective of their maturity date. Underwriting services provided to the selected companies were researched for the period 1 January 2018 to present.

- Investors research:

Financial databases Thomson EMAXX and Refinitiv were consulted to identify investors in bonds and shares of the selected companies. These investments were analysed for the most recent available filing date. Investments by financial institutions that are not available in the financial databases (mainly pension funds) were researched at the most recent publication date.

- Implementation check:

The implementation check was performed by cross-checking the occurrence of financial relations of selected arms companies and selected financial institutions in the following sources:

- the financial dataset as created during the creditors and investors research;
- information provided by the selected financial institutions, i.e. investment portfolios, exclusion lists, annual reports, websites, and other relevant publications;
- information provided by the selected arms companies, i.e. annual reports, company websites, and other relevant publications.
- a general media search with search terms “company X” AND “financial institution Y”.

1.5 Exclusions by other financial institutions

A quick scan of exclusion lists was conducted to identify other large financial institutions excluding the arms companies included in this study. For this purpose, publicly available exclusion lists from three other banks from European countries were selected. The examples provided include the reason for exclusion as provided by the financial institution in question, however, the validity of these reasons and the actual implementation of the policies have not been verified.

1.6 Due hearing process

The research for this report was conducted between June and September 2020. During the research process, the three banks were invited to share any internal policies that may be relevant for the policy assessment. Furthermore, each bank was provided with the opportunity to respond to:

- the draft assessment of its arms policy; and
- the results of the analysis of its financial relationships with the selected companies.

Only UBS provided feedback during this process. The comments have been integrated into the policy assessment and final report.

2

Arms policies and practices of the banks

The following sections present the results of the policy analysis of the three selected Swiss financial institutions in relation to arms producers. This is followed by an overview of financial relationships that have been identified in relation to the selected group of leading arms producers and the results of a quick scan of exclusion lists.

2.1 Credit Suisse

Credit Suisse is one of the leading banks in Switzerland and provides a wide variety of financial services. Its core activities are in wealth management, investment banking and banking services for commercial, institutional, and private clients in Switzerland through its subsidiary Swiss Universal Bank.¹⁵ Credit Suisse is active in about 50 countries worldwide.

Its total assets under management (AuM) at the end of 2019 were CHF 1,507.2 billion.¹⁶ The Group's own assets amounted to CHF 787,3 billion at year-end 2019, with a total loan portfolio of CHF 296.7 billion was in loans and CHF 153.8 billion invested in trading assets.¹⁷

2.1.1 Policy assessment

Table 2 presents the results of the assessment of the arms policies of Credit Suisse. For each category of assessment criteria, the table provides the number of criteria and the points granted. The resulting policy score is calculated by dividing the amount of points granted by the total number of assessment criteria and multiplying by ten.^a The bank's scores on each individual assessment criterion can be found in Appendix 1.

Table 2 Scores for the arms policies of Credit Suisse

Assessment category	No. of criteria	Points granted	Policy score
Transparency and accountability	1	1.0	0.6
Controversial weapons and dual-use goods	7	4.0	2.5
Controversial arms trade	8	0.0	0.0
Total	16	5.0	3.1

The final policy score for Credit Suisse is 3.1 out of 10 (highly insufficient). The bank has published a summary of its sector policies and guidelines, including its policy for the arms industry. This policy applies to all business activities of Credit Suisse.¹⁸

Credit Suisse has adopted the Swiss War Material Act for global application in its financing and investment policies.¹⁹ The Swiss War Material Act prohibits the direct financing of nuclear, biological, and chemical (NBC) weapons, as well as cluster munition and anti-personnel mines. It

^a Due to rounding, the total policy score may not correspond with the sum of the separate scores for each assessment category.

also prohibits their indirect financing through the purchasing of shares or bonds, but only if this is done with the intention of circumventing the ban on direct financing.²⁰

This results in several exclusions for controversial weapons. Credit Suisse excludes the direct financing of the development, production and trade in anti-personnel mines and cluster munitions. In addition, the bank excludes indirect financing of anti-personnel mines and cluster munition producers through securities for its proprietary investments as well as its actively managed funds and discretionary mandates. However, companies involved in cluster munitions and anti-personnel weapons are not excluded from passively managed or index funds.

Credit Suisse also has a policy against financing of NBC weapons, but the policy is significantly limited in scope. Direct financing of the development, production and trade in NBC weapons is excluded, but since the policy is based on the Swiss War Material Act, the definition of direct financing is limited to the “[...] *granting of credits, loans or gifts [...] to pay or advance costs and expenditures that are associated with the development, manufacture or acquisition of prohibited war material*”.²¹ Such a definition would not prevent Credit Suisse from granting loans or credit to companies involved in the development, production or purchase of NBC weapons, as long as these pertain to the non-NBC weapons related business lines of a company. This effectively means that the NBC weapons policy of Credit Suisse only applies to a small part of its corporate credit activities. In addition, Credit Suisse does not mention any policy against indirect financing of NBC weapons, for instance by investments in securities of companies involved in the production of NBC weapons.

No additional evidence was found of any policies that go beyond the minimum requirements of the Swiss War Materials Act. No information was found on Credit Suisse’s policies for other types of controversial weapons such as Lethal Autonomous Weapons Systems (LAWS), or on the bank’s approach towards dual-use goods.

No public policies by Credit Suisse were found on controversial arms trading, such as the supply of weapons and other military goods to countries:

- under a UN or EU arms embargo;
- involved in severe violations of human rights;
- where a significant risk exists that the weapons will be used to violate human rights;
- that are sensitive to corruption;
- with a failed or fragile state; or
- that spend a disproportionate part of their budget on arms purchase.

2.1.2 Financial relationships with arms companies

Credit Suisse provided credit to six of the 43 arms companies in the company selection, with a total value of US\$ 3.8 billion. The credit consists of US\$ 1.4 billion in loans and US\$ 2.3 billion in underwriting services (bonds and shares issuances). The value per arms company group during the analysed three-year period is given in Table 3. Boeing, General Electric, and Raytheon Technologies Corp received the largest amounts of credit.

Table 3 Credit provided by Credit Suisse to selected arms companies (Jan. 2018 – Sep. 2020, US\$ mln)

Group	Loans	Underwriting	Total
Boeing	575	1,026	1,601
General Electric		1,175	1,175
Raytheon Technologies Corp	629	35	664
Northrop Grumman	54	90	144
Airbus	115		115
Booz Allen Hamilton	69		69

Group	Loans	Underwriting	Total
Total	1,443	2,325	3,769

Note: All loans, bond and share issuances closed from 1 January 2018; all historical loans maturing after 1 October 2019.
Sources: Refinitiv (2020), 'Loans, bond and share issuances of selected companies', viewed in September 2020; Bloomberg (2020), 'Loans, bond and share issuances of selected companies', viewed in September 2020.

Furthermore, Credit Suisse invested in 26 of the 43 arms companies in the company selection, with a total value of US\$ 1.4 billion. The investments consist of US\$ 107 million in bonds, and US\$ 1,289 million in shares. The value per arms company group is given in Table 4. Credit Suisse invested the largest amounts in Boeing, General Electric, and Honeywell.

Table 4 Investments by Credit Suisse in selected arms companies (Sep. 2020, at most recent filing date, US\$ mln)

Group	Bonds	Shares	Total
Boeing	3	232	235
General Electric	73	154	227
Honeywell	4	189	193
Raytheon Technologies Corp	8	168	176
Airbus	1	90	91
BAE Systems	3	81	84
L3Harris Technologies	4	68	72
Lockheed Martin	1	50	51
General Dynamics	4	42	47
Northrop Grumman	1	36	37
Safran	0.1	32	32
Booz Allen Hamilton	0.1	31	31
Rolls-Royce	2	20	22
Leidos	0.1	21	21
Rheinmetall		19	19
Huntington Ingalls Industries	0.3	13	13
Mitsubishi Heavy Industries		10	10
Aecom		10	10
Thales	1	7	8
BWX Technologies	0.1	4	4
Textron		3	3
Leonardo		3	3
Fluor	1	2	2
Serco		2	2
Aerojet Rocketdyne		1	1
China Aerospace Science and Technology (CASC)		0.2	0.2
Total	107	1,289	1,395

Sources: Refinitiv EMAXX (2020), 'Bondholders of selected companies', viewed in September 2020; Refinitiv (2020), 'Shareholders of selected companies', viewed in September 2020.

2.2 UBS

UBS is the largest bank in Switzerland both in terms of own assets and AuM. It provides a variety of financial services through its four main business divisions: global wealth management, personal and corporate banking, asset management and investment banking.²² Its personal and corporate banking activities are concentrated in Switzerland. Wealth management, asset management and investment banking operations are done globally, with offices around the world.

In 2019, UBS Global Wealth Management managed around US\$ 2.6 trillion (CHF 2.4 trillion) in invested assets, and UBS Asset Management managed US\$ 903.0 billion (CHF 824.1 billion) in invested assets.²³ The bank's own assets were US\$ 972.2 billion (CHF 887.3 billion) at the end of 2019, with a loan portfolio of US\$ 326.8 billion (CHF 298.3 billion).²⁴

2.2.1 Policy assessment

Table 5 presents the results of the assessment of the arms policies of UBS. For each category of assessment criteria, the table provides the number of criteria and the points granted. The resulting policy score is calculated by dividing the amount of points granted by the total number of assessment criteria and multiplying by ten.^b The bank's scores on each individual assessment criterion can be found in Appendix 1.

Table 5 Scores for the arms policies of UBS

Assessment category	No. of criteria	Points granted	Policy score
Transparency and accountability	1	1.0	0.6
Controversial weapons and dual-use goods	7	4.0	2.5
Controversial arms trade	8	0.0	0.0
Total	16	5.0	3.1

The final policy score for UBS is 3.1 out of 10 (highly insufficient). UBS has published an environmental and social risk policy framework, which applies to all business activities of UBS and includes its rules for financing controversial weapons.²⁵

UBS has a policy on controversial weapons based on the Swiss Federal Act on War Material, and claims it "[...] does not directly or indirectly finance the development, production or purchase of controversial weapons of such companies determined to fall within the "Swiss Federal Act on War Materials".²⁶ The Swiss War Material Act prohibits the direct financing of nuclear, biological, and chemical (NBC) weapons, as well as cluster munition and anti-personnel mines. It also prohibits their indirect financing through the purchasing of shares or bonds, but only if this is done with the intention of circumventing the ban on direct financing.²⁷

UBS therefore excludes provision of credit to, or capital market transactions for, companies involved in the development, production or purchase of anti-personnel mines and cluster munitions. In addition, the bank excludes these companies from its actively managed retail and institutional funds, and discretionary mandates.²⁸ However, companies involved in cluster munitions and anti-personnel weapons are not excluded from passively managed or index funds.

UBS also excludes the direct and indirect financing of the development, production, and development of NBC weapons, but does not clarify its definition of either direct or indirect financing. The policy instead refers to the Swiss War Materials Act, which defines direct financing as the "[...] granting of credits, loans or gifts [...] to pay or advance costs and expenditures that are associated with the development, manufacture or acquisition of prohibited war material".²⁹ As for indirect financing, the Swiss War Materials Act defines it as the participation in companies or the

^b Due to rounding, the total policy score may not correspond with the sum of the separate scores for each assessment category.

purchasing of securities issued by companies developing, manufacturing or acquiring prohibited weapons “[...] where the prohibition of direct financing is circumvented thereby”.³⁰

On strict interpretation, these definitions would not prevent UBS from granting loans or credit to companies involved in the development, production or purchase of NBC weapons, as long as these pertain to the non-NBC weapons related business lines of a company. Furthermore, UBS’s investments in securities issued by companies involved in NBC weapons would only count as indirect financing of NBC weapons – and would hence be excluded – if the purchase of these securities was done with the intent of circumventing the ban on direct financing. Since such intent would be near-impossible to prove, the scope of UBS’s NBC weapons policy is effectively limited to only a small part of the bank’s corporate credits activities and does not apply to its investments.

Aside from the policies applying the minimum requirements of the Swiss War Material Act, no public policies were found for other types of controversial weapons, such as Lethal Autonomous Weapons Systems (LAWS), or on the bank’s approach towards dual-use goods.

No public policies were found on controversial arms trading, such as the supply of weapons and other military goods to countries:

- under a UN or EU arms embargo;
- involved in severe violations of human rights;
- where a significant risk exists that the weapons will be used to violate human rights;
- that are sensitive to corruption;
- with a failed or fragile state; or
- that spend a disproportionate part of their budget on arms purchase.

In response to the draft assessment of the bank’s arms policy, UBS noted that it has an internal policy framework for trade transaction acceptance, which prohibits trade transactions involving war materials, unless certain conditions are met. However, this policy is only applied in the context of trade finance, which comprises only a small part of the bank’s corporate credit activities. No mention was made of requirements for companies financed by UBS to avoid involvement in controversial forms of arms trade, or of any commitment on the part of UBS not to finance companies involved in controversial arms trade. Therefore, the presence of internal policies specifically for trade financing does not affect the overall policy score of UBS.

2.2.2 Financial relationships with arms companies

USB provided credit to three of the 43 arms companies in the company selection, with a total value of US\$ 628 million, consisting of loans (and no underwritings). The value per arms company group is given in Table 6. The three creditors are Raytheon Technologies Corp, Airbus, and Boeing.

Table 6 Credit provided by UBS to selected arms companies (Jan. 2018–Sep. 2020, US\$ mln)

Group	Loans
Raytheon Technologies Corp	482
Airbus	115
Boeing	30
Total	628

Note: All loans, bond and share issuances closed from 1 January 2018; all historical loans maturing after 1 October 2019.
Sources: Refinitiv (2020), ‘Loans, bond and share issuances of selected companies’, viewed in September 2020; Bloomberg (2020), ‘Loans, bond and share issuances of selected companies’, viewed in September 2020.

Furthermore, UBS invested in 32 of the 43 arms companies in the company selection, with a total value of US\$ 5.6 billion. The investments consist of US\$ 317 million in bonds, and US\$ 5,267 million in shares. The value per arms company group is given in Table 7. UBS invested the largest amounts in Lockheed Martin, Raytheon Technologies Corp, and Honeywell.

Table 7 Investments by UBS in selected arms companies (Sep. 2020, at most recent filing date, US\$ mln)

Group	Bonds	Shares	Total
Lockheed Martin	4	1,088	1,092
Raytheon Technologies Corp	113	944	1,057
Honeywell	8	986	994
Boeing	21	688	708
General Electric	103	321	424
General Dynamics	5	182	187
L3Harris Technologies	5	177	183
Northrop Grumman	5	152	157
Safran		115	115
Airbus	3	110	113
Booz Allen Hamilton	5	106	111
Leidos	3	70	73
BAE Systems	14	51	65
Serco		61	61
Huntington Ingalls Industries	1	55	55
Aecom	16	32	47
Thales	5	26	31
Textron	1	20	21
Rolls-Royce	2	17	19
Mitsubishi Heavy Industries		18	18
BWX Technologies	2	11	14
Rheinmetall		9	9
Leonardo		7	7
Aerojet Rocketdyne		7	7
Fluor		7	7
Larsen & Toubro		5	5
Jacobs Engineering	3		3
Elbit Systems		1	1
Hanwha		1	1
China Aerospace Science and Technology (CASC)		1	1
Bharat Dynamics Limited		0.0	0.0
Lig Nex1		0.0	0.0
Total	317	5,267	5,584

Sources: Refinitiv EMAXX (2020), 'Bondholders of selected companies', viewed in September 2020; Refinitiv (2020), 'Shareholders of selected companies', viewed in September 2020.

2.3 Swiss National Bank (SNB)

The Swiss National Bank (SNB) is the independent central bank of Switzerland. As the central bank, it is mandated by the Swiss Constitution with conducting the monetary policy of Switzerland, with the primary goal of maintaining price stability.³¹ The bank's shares are publicly traded on the Swiss stock exchange, with around half of the shares owned by public entities such as the cantons and cantonal banks.³² The Swiss Confederation is not a shareholder of the SNB.

To facilitate its role in monetary policy, the SNB invests its own assets, mostly in foreign currency investments (92.2%), gold (5.7%) and Swiss franc-denominated bonds (1.2%).³³ At the end of 2019, the SNB's total assets were CHF 861 billion, with CHF 794 billion in foreign currency investments and CHF 4.1 billion in Swiss franc securities.³⁴

2.3.1 Policy assessment

Table 8 presents the results of the assessment of the arms policies of SNB. For each category of assessment criteria, the table provides the number of criteria and the points granted. The resulting policy score is calculated by dividing the amount of points granted by the total number of assessment criteria and multiplying by ten.^c The bank's scores on each individual assessment criterion can be found in Appendix 1.

Table 8 Scores for the arms policies of SNB

Assessment category	No. of criteria	Points granted	Policy score
Transparency and accountability	1	1.0	0.6
Controversial weapons and dual-use goods	7	5.0	3.1
Controversial arms trade	8	0.0	0.0
Total	16	6.0	3.8

Since SNB only invests its own assets and provides neither corporate credits nor asset management services for clients, the scope of relevant investment categories for SNB is limited to asset management for own account. The final policy score for SNB is 3.8 out of 10 (insufficient).

SNB has published investment policy guidelines, in which it describes its investment policy. In addition, the bank describes its policy on investment in weapons companies in its Annual Report.³⁵ SNB's arms policy excludes the purchase of "*securities issued by companies [...] involved in the production of internationally condemned weapons*".³⁶ SNB includes anti-personnel mines, cluster munition, and biological and chemical weapons in its definition of condemned weapons. Producers of nuclear weapons are not excluded, as long as they only produce nuclear weapons for the five legitimate nuclear-weapons states under the Nuclear Non-Proliferation Treaty (China, France, Russia, United Kingdom, United States).

SNB's policy on controversial weapons only concerns production and does not include any requirements for, or exclusions of, companies involved in the development, maintenance, or trade in controversial weapons. No information was found on any policies on investments in producers of other types of controversial weapons, such as LAWS, or on the bank's approach towards dual-use goods.

No policies were found on controversial arms trading, such as the supply of weapons and other military goods to countries:

- under a UN or EU arms embargo;
- involved in severe violations of human rights;
- where a significant risk exists that the weapons will be used to violate human rights;
- that are sensitive to corruption;

^c Due to rounding, the total policy score may not correspond with the sum of the separate scores for each assessment category.

- with a failed or fragile state; or
- that spend a disproportionate part of their budget on arms purchase.

2.3.2 Financial relationships with arms companies

SNB did not provide credit to any of the 43 arms companies in the company selection. However, SNB invested in 16 of the arms companies, with a total value of US\$ 2.0 billion in shareholdings. The value per arms company group is given in Table 9Table 4. SNB invested the largest amounts in Honeywell, Boeing, and Raytheon Technologies Corp.

Table 9 Investments by SNB in selected arms companies (Sep. 2020, at most recent filing date, US\$ mln)

Group	Shares
Honeywell	407
Boeing	388
Raytheon Technologies Corp	369
General Electric	236
L3Harris Technologies	148
General Dynamics	146
BAE Systems	74
Leidos	50
Booz Allen Hamilton	43
Rolls-Royce	29
Huntington Ingalls Industries	28
Aecom	13
BWX Technologies	12
Aerojet Rocketdyne	6
Fluor	4
Serco	4
Total	1,957

Sources: Refinitiv EMAXX (2020), 'Bondholders of selected companies', viewed in September 2020; Refinitiv (2020), 'Shareholders of selected companies', viewed in September 2020.

2.4 Exclusion policies and lists of other financial institutions

Exclusion policies and exclusion lists as tools to exclude controversial arms companies from an investment universe are becoming more and more the new normal in the financial industry. These policies commonly cover nuclear weapons but also other inhumane and illegal weapons such as cluster munitions, landmines, and chemical weapons. The latest *Don't Bank on the Bomb* report from 2019, which focusses on nuclear weapons, lists 77 financial institutions with (comprehensive) policies. Of the three Swiss banks, Credit Suisse is included in the 'Runners-Up' list^d in relation to its policy on nuclear weapon companies.³⁷ The analysed Swiss banks have no publicly available exclusion lists.

^d In the 2019 *Don't Bank on the Bomb* report, ABN Amro and Danske Bank are in the 'Runners-up' category for their nuclear weapons policies (not all-inclusive policy; DNB is in the 'Hall of Fame' category (comprehensive policy)).

Table 10 provides an overview of arms companies' exclusions published by three other commercial banks: ABN Amro (Netherlands), DNB (Norway), and Danske Bank (Denmark) in relation to the companies selected for this study. The reasons given for exclusion and the actual implementation of these exclusions have not been verified. Listed are companies that are excluded by at least one of the banks.

Table 10 Exclusions of arms companies by selected financial institutions

Arms company	Reason for exclusion		
	ABN Amro	Danske Bank	DNB
Aecom	-	CW	-
Aerojet Rocketdyne	-	CW	NW
Airbus Group	-	CW	NW
Anhui Great Wall Military Industry Co.	CM	CW	-
BAE Systems	WPW	CW	NW
Bharat Dynamics Limited	NW	CW	-
Boeing	-	CW ^b	NW
Booz Allen Hamilton	-	CW	-
BWX Technologies	-	CW	NW
China Aerospace Science and Technology (CASC)	NW, CM ^a	CW	-
Elbit Systems	WPW	CW	HR
Fluor Corp.	-	CW	NW
General Dynamics Corp.	WPW	CW	NW
Hanwha	-	CW	CM
Honeywell International	-	CW	NW
Huntington Ingalls Industries	-	CW	NW
Jacobs Engineering	-	CW	NW
L3Harris Technologies	-	CW/NAT	-
Larsen & Toubro	NW	CW	-
Leidos	-	CW	NW
Leonardo	-	CW	NW
LIG Nex1	CM	CW	-
Lockheed Martin Corp.	-	CW	NW
NORINCO	-	NAD	-
Northrop Grumman Corp.	-	CW	NW
Poongsan	CM	CW	CM
Raytheon Technologies Corp.	-	CW/NATW	NW
Rolls-Royce	-	CW	-
Safran	-	CW	NW
Serco Group	-	CW	NW
Textron	-	CW	CM
Thales	-	CW	NW
Walchandnagar Industries	NW	CW	-

Notes: Reason for exclusion given by the financial institution has not been verified.

Abbreviations: CM=Cluster Munitions; CW=Controversial weapons; HR=Human Rights; NW=Nuclear weapons; WPW=White phosphorus weapons; NAD=Norms – Arms & Defense; NAT=Norms – Arms Trade.

^aABN Amro excludes the subsidiary China Aerospace International Holdings; ^bDanske Bank excludes Boeing Capital Corp.
Source: ABN Amro (2020, June 24), *Publically-listed Companies ABN Amro Excludes Because of Involvement in Controversial Weapons*; Danske Invest (2020, September), *Investment Restrictions*; DNB (2020), “Corporate dialogue and exclusions”, online: <https://www.dnb.no/en/about-us/exclusions.html>, viewed in October 2020.

3

Profiles of selected arms companies

The ten companies profiled in this section were chosen due to their large exposure to the selected banks and their important role in the international arms production sector. The profiles briefly describe the companies' arms portfolio, involvement in the production of controversial arms, and export relationships with fragile states or states involved in conflict.

3.1 Airbus Group (Netherlands)

Airbus Group engages in the manufacture and sale of commercial aircraft, civil and military helicopters, commercial space launch vehicles, missiles, military aircraft, satellites, military systems, and military electronics. For the financial year 2019, Airbus reported revenues of EUR 70.5 billion (CHF 76.6 billion) and a net loss of EUR -1.4 billion (CHF -1.5 billion).³⁸

According to the SIPRI database, Airbus was the 7th largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 15% of its total sales.³⁹

Examples of Airbus weapons systems and trade

- Airbus has been a contractor for the French nuclear weapons programme since its inception and remains involved in nuclear weapons production through its 50% ownership of Ariane Group, which manufactures and maintains submarine-launched nuclear missiles (SLBM) for the French navy. The missile warhead is built by France's Directorate General of Armaments (DGA).⁴⁰ The current version of the French SLBM, M51.2, has been in operation since 2017 and will be added to all French nuclear submarines during 2020. Airbus also signed a contract with the French government to develop the next generation submarine-launched missiles, the M51.3, to enter service around 2025.⁴¹
- Airbus holds a 37.5% share in the joint venture MBDA-Systems, together with BAE Systems (37.5%) and Leonardo (25%). MBDA-Systems is the prime contractor for maintenance of the airborne French ASMPA nuclear missiles as well as for the development of the new French nuclear missiles, the ASN4G.⁴²
- In recent years, Airbus has been involved in arms exports to Saudi Arabia and to countries that are part of the Saudi-led coalition in Yemen (Egypt, Kuwait, UAE).⁴³ Among others, Saudi Arabia received several orders of the Eurofighter Typhoon, which have been employed in combat missions in Yemen.⁴⁴ Airbus is involved in the consortium that is building the Typhoon, jointly developed by Airbus (46%), BAE Systems (UK) (33%) and Leonardo (UK) (21%).⁴⁵
- As part of the Euro-ART consortium together with Thales (France) and Lockheed Martin (U.S.), Airbus has developed the COBRA weapon location radar system on behalf of Germany, France, and the UK.⁴⁶ In April 2019, the German government had banned weapons exports to Saudi Arabia as a reaction to the murder of Jamal Khashoggi. However, after by the French and UK governments against the ban, Germany's national security council approved exports of COBRA systems and components of other weapons systems to Saudi Arabia, as part of an exception for weapons systems developed in cooperation with other countries.⁴⁷
- MBDA-Systems also produced the Brimstone missiles for the British Air Force. Saudi Arabia was one of the export customers for the air-to-surface missile. The UK government confirmed the use of Typhoon aircrafts and dual-mode Brimstone guided missiles by the Saudi Air Force in Yemen.⁴⁸ The dual-mode Brimstone is capable of autonomous target selection.⁴⁹

- Airbus is also involved in trials of manned/unmanned teaming technologies (MUT) and the development of drone swarming technology.⁵⁰

3.2 Boeing (United States)

Boeing is the world's largest aerospace company and a leading manufacturer of jetliners and military, space, and security systems. Its products and services include commercial and military aircraft, satellites, bombs and missiles, electronic and military systems, launch systems, advanced information and communication systems, and performance-based logistics and training.⁵¹ For the financial year 2019, Boeing reported US\$ 76.6 billion (CHF 74.1 billion) in revenues and a net loss of US\$ -636 million (CHF -615.5 million).⁵²

According to the SIPRI database, Boeing was the 2nd largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 29% of its total sales.⁵³

Examples of Boeing weapons systems and trade

- Boeing has a long history of involvement in the design, development, testing, production, and maintenance of nuclear weapons, including the LGM-30 Minuteman Intercontinental Ballistic Missile (ICBM) versions I, II, and III, and the U.S. and UK Trident Arsenal.⁵⁴ Boeing also maintains the U.S. Minuteman III nuclear ICBM operational until 2030.⁵⁵
- Boeing had been in competition for a U.S. Air Force contract to develop the Ground Based Strategic Deterrence (GBSD) system that is to replace the Minuteman III system around 2030 but dropped out in July 2019.⁵⁶
- Furthermore, Boeing produces the tail kit for the B61-12 version of air-launched nuclear gravity bombs, which will replace the U.S. nuclear weapons currently deployed in five EU countries.⁵⁷
- Boeing is involved in the development of increasingly autonomous weapons systems through its dedicated research facilities and its subsidiaries Insitu, Liquid Robotics and Aurora Flight Services. Among others, Boeing and its subsidiaries have produced the MQ-25 Stingray unmanned refueler aircraft and the fully autonomous Echo Voyager underwater vehicle.⁵⁸
- Boeing has delivered weapons and military services to Saudi Arabia and partners in the Saudi-led coalition (Egypt, Jordan, UAE) throughout the country's involvement in the conflict in Yemen, including Apache helicopters, F-15 fighter jets, RGM-84L Harpoon-2 anti-ship missiles, AGM-84H SLAM-ER cruise missiles and GBU-39 SDB guided bombs.⁵⁹
- Weapons and components produced by Boeing and its subsidiaries, including 65 ScanEagle Unmanned Aerial Vehicles (UAV), produced by Boeing subsidiary Insitu, and Boeing Chinook helicopters, have also been supplied to Afghanistan in recent years.⁶⁰

3.3 Booz Allen Hamilton (United States)

Booz Allen Hamilton is a management and information technology consulting firm specializing in consultancy services for military and intelligence agencies. For the financial year 2019, Booz Allen Hamilton reported US\$ 7.5 billion (CHF 7.3 billion) in revenues and a net profit of US\$ 483 million (CHF 467.5 million).⁶¹

According to the SIPRI database, Booz Allen Hamilton was the 19th largest arms-producing and military services company in the world by sales in 2018. Military and intelligence clients accounted for around 70% of its total sales.⁶²

Examples of Booz Allen weapons systems and trade

- Booz Allen Hamilton has a close relationship with the current Saudi government. It has contracts to train the Saudi Navy, Army, and security services, focusing on logistics, intelligence, and cybersecurity. A 2018 investigation by the New York Times found that Booz Allen Hamilton, together with McKinsey and Boston Consulting Group, has been a key player in Crown-Prince Mohammad bin Salman's push to consolidate power in the country in 2018 and has continued its operations in Saudi Arabia after the murder of Jamal Khashoggi.⁶³
- Booz Allen Hamilton is part of the Consolidated Nuclear Security (CNS), a Bechtel-led joint venture including Leidos, ATK Launch Systems (part of Northrop Grumman), SOC, and Booz Allen Hamilton as a teaming subcontractor.⁶⁴ CNS is involved in a contract for design and construction of a Uranium Processing Facility (UPF) at the Y-12 National Security Complex which is supposed to become the manufacturing hub for nuclear-weapon secondary stages in the mid-2020s.⁶⁵ Since 2014 and until 2021, CNS is also responsible for the management and operation of the Y-12 National Security Complex and the Pantex Plant in Texas. The Pantex plant has been described as the U.S.'s primary facility for the assembly, dismantlement and maintenance of nuclear weapons.⁶⁶

3.4 General Dynamics (United States)

General Dynamics provides business aviation, combat vehicles, weapons systems, and munitions; IT and C4ISR solutions; and shipbuilding and ship repair.⁶⁷ For the financial year 2019, General Dynamics reported US\$ 39.4 billion (CHF 38.1 billion) in revenues and a net profit of US\$ 3.5 billion (CHF 3.4 billion).⁶⁸

According to the SIPRI database, General Dynamics was the 5th largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 61% of its total sales.⁶⁹

Examples of General Dynamics weapons systems and trade

- General Dynamics is involved in the production and maintenance of the Trident II (D5) for the U.S. and UK. General Dynamics is also responsible for integrating the Trident SLBM in new U.S. and UK submarines.⁷⁰
- In addition, General Dynamics Land Systems produces the Abrams battle tank, which has been employed since 2015 by Saudi Arabia in the Yemeni Civil War. Between 2018 and 2020, 140 new M-1A2S Abrams tanks have been delivered to Saudi Arabia.⁷¹ Abrams tanks produced by General Dynamics have also been supplied to countries with a poor record on human rights, such as Egypt.⁷²
- General Dynamics's Swiss subsidiary, Mowag, is part of General Dynamics European Land Systems. It is active in the design and production of armoured vehicles for military applications, including the Piranha amphibious multipurpose armoured vehicle. Five generations of Piranha have been manufactured by Mowag or under licence by other companies. Piranhas are in service with military forces throughout the world, including the army of Saudi Arabia and the Nigerian army.⁷³

3.5 General Electric (United States)

General Electric is a conglomerate active in both military and civilian sectors, including aviation, healthcare, information technology, power generation and finance. Its military business (through GE Aviation) is focused on the production of engines, control systems, turbines, and other components. For the financial year 2019, General Electric reported revenues of US\$ 95.2 billion (CHF 92.1 billion) and a net loss of US\$ -5.3 billion (CHF -5.1 billion).⁷⁴

According to the SIPRI database, General Electric was the 24th largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 3% of its total sales.⁷⁵

Examples of General Electric weapons systems and trade

- Amongst others, General Electric provides the engine for the Boeing B-52 Stratofortress bomber.⁷⁶ The B-52 is the U.S. military aircraft that is able to deliver the widest variety of stand-off and direct-attack nuclear and conventional weapons.⁷⁷
- GE Aviation F110 Turbofan engines, which serve as components of the F-15E fighter jet, were delivered to Saudi Arabia between 2017 and 2019.⁷⁸

3.6 Honeywell International (United States)

Honeywell International operates as a diversified technology and manufacturing company. The company's business units are aerospace, building technologies, safety and productivity solutions and performance materials and technologies.⁷⁹ In the financial year 2019, Honeywell International reported total revenues of US\$ 36.7 billion (CHF 35.5 billion) and net profits of US\$ 6.1 billion (CHF 5.9 billion).⁸⁰

According to the SIPRI database, Honeywell International was the 14th largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 13% of its total sales.⁸¹

Examples of Honeywell International weapons systems and trade

- Honeywell is involved in U.S. nuclear weapon facilities, such as National Security Campus in Kansas City, MI, where 85% of non-nuclear components for U.S. nuclear weapons are produced.⁸²
- In addition, Honeywell has produced key components related to the Trident II (D5) SLBM system, currently in use by the U.S. and UK, and the U.S. Minuteman III ICBM.⁸³
- In September 2019, Honeywell won a contract to supply engine components for Saudi Arabian tank engines used in the M1 Abrams series.⁸⁴

3.7 Lockheed Martin (United States)

Lockheed Martin focuses on aeronautics, space systems, electronic systems, and information systems. Its most important divisions are aerospace and defence, information technology and new technologies.⁸⁵ In the financial year 2019, Lockheed Martin reported revenues of US\$ 59.8 billion (CHF 57.9 billion) and net profits of US\$ 6.2 billion (CHF 6 billion).⁸⁶

According to the SIPRI database, Lockheed Martin was the largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 88% of its total sales.⁸⁷

Examples of Lockheed Martin weapons systems and trade

- Lockheed Martin is strategically involved in the production and maintenance of nuclear weapons for the U.S. and UK through the Trident II D5 Fleet Ballistic Missile and the Minuteman III nuclear ICBM programmes. It is also a part of the joint venture AWE-ML, the company that manages the UK's Atomic Weapons Establishment.⁸⁸
- Lockheed Martin is involved in the development of increasingly autonomous weapons systems through its Have Raider experiment, which aims to develop the technology for teaming manned and unmanned aircraft, including the capacity for the unmanned aircraft to autonomously carry out air-to-ground strike missions.⁸⁹

- In recent years, Lockheed Martin has been involved in various arms exports to Saudi Arabia or countries that part of the Saudi-led coalition in Yemen (Egypt, Jordan, Kuwait, Morocco, UAE). Saudi Arabia received among other in recent years frigates, anti-ballistic missiles, and naval surface-to-air missiles.⁹⁰ Helicopters manufactured by Lockheed Martin's subsidiary Sikorsky have been delivered to Saudi Arabia between 2018 and 2019.⁹¹
- In 2018, Lockheed Martin was awarded a contract to produce F-16 Viper Block 70 fighter aircraft for Bahrain. The sale was first approved by the U.S. State Department in 2016 but was delayed by the Obama administration over human rights concerns. The Trump administration dropped these conditions in 2017 and approved the sale of 19 aircraft worth US\$ 2.8 billion, and another US\$ 1.1 billion to upgrade Bahrain's existing fleet of F-16s.⁹²

3.8 Northrop Grumman (United States)

Northrop Grumman provides products, services and solutions in the military aerospace, electronics, information systems and shipbuilding sectors.⁹³ In June 2018, Northrop Grumman acquired Orbital ATK and renamed it Northrop Grumman Innovation Systems.⁹⁴ For the financial year 2019, Northrop Grumman reported US\$ 33.8 billion (CHF 32.7 billion) in revenues and US\$ 2.2 billion (CHF 2.1 billion) in net profits.⁹⁵

According to the SIPRI database, Northrop Grumman was the 3rd largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 87% of its total sales.⁹⁶

Examples of Northrop Grumman weapons systems and trade

- Orbital ATK and its subsidiary ATK Launch Systems held nuclear weapons contracts for the U.S. arsenal prior to the acquisition and was involved in the production of key components of cluster munitions until 2017.⁹⁷
- In September 2020, Northrop Grumman was awarded with a US\$ 13.3 billion contract for the engineering and manufacturing phase of the Ground Based Strategic Deterrent (GBSD) nuclear ICBM programme of the U.S. Air Force, which is to replace the older Minuteman ICBM around 2030.⁹⁸
- The 2017 Lockheed Martin deal for delivery of F-16 Viper Block 70 aircrafts to Bahrain included the sale of Northrop Grumman's APG-83 radar system.⁹⁹
- Northrop Grumman is involved in the development of increasingly autonomous weapons systems through the development of several types of autonomous aircraft, such as the X-47B Unmanned Combat Air System (UCAS) and the MQ-8 Fire Scout autonomous helicopter system.¹⁰⁰

3.9 Raytheon Technologies Corp (United States)

Raytheon Technologies was formed in April 2020 through a merger of the Raytheon Company and United Technologies. The company provides military electronics, missiles, mission systems integration and other capabilities in the areas of sensing and command, control, communications, and intelligence systems as well as a broad range of mission support services.¹⁰¹

According to the SIPRI database, Raytheon was the 4th largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 87% of its total sales. United Technologies was the 11th largest arms-producing and military services company in the world in 2018, with arms sales accounting for 14% of its sales.¹⁰²

Examples of Raytheon Technologies weapons systems and trade

- The business division Raytheon Missiles & Defense produces missiles and ammunition for both aerial, maritime, and land-based warfare, including precision ammunition for Lockheed's F-35 fighter jet.¹⁰³

- In April 2020, Raytheon was selected by the U.S. Air Force as the sole contractor for developing the Long Range Standoff weapon (LRSO), a nuclear air-fired cruise missile.¹⁰⁴ Previously, Raytheon has been part of the Boeing GBSD team, which aimed to develop a replacement for the current Minuteman III ICBM system.
- Raytheon is involved in the development of increasingly autonomous weapons systems as the lead sponsor of a dedicated university research facility for autonomous systems research at Caltech. In addition, Raytheon has developed the JSM/NSM cruise missile, which is capable of autonomous target recognition, the MIM-104 Patriot autonomous anti-air defence system, and the small Coyote unmanned aircraft, which is capable of flying autonomously in a swarm.¹⁰⁵
- Weapons systems and components produced by Raytheon Technologies Corp or its subsidiaries have in recent years been delivered to several fragile states, including Afghanistan and Nigeria.¹⁰⁶
- Boeing has delivered weapons and military services to Saudi Arabia and partners in the Saudi-led coalition (Egypt, Jordan, Kuwait, Morocco, UAE) throughout the country's involvement in the conflict in Yemen, including surface-to-air and anti-ballistic missiles, guided bombs and radar systems.¹⁰⁷ In 2017, Raytheon has been awarded a US\$ 302 million contract for the procurement of 618 Joint Standoff Weapon (JSOW), air-to-ground missiles for Saudi Arabia.¹⁰⁸

3.10 Rheinmetall (Germany)

Rheinmetall is a German integrated technology group, providing products for the defence and automotive industry.¹⁰⁹ For the financial year 2019, Rheinmetall reported EUR 6.3 billion (CHF 6.8 billion) in revenues and EUR 354 million (CHF 384.6 billion) in net profits.¹¹⁰

According to the SIPRI database, Rheinmetall was the 22nd largest arms-producing and military services company in the world by sales in 2018. Arms sales accounted for 52% of its total sales.¹¹¹

Examples of Rheinmetall weapons systems and trade

- After the German government announced a suspension of approvals of arms exports to Saudi Arabia in October 2018 as a reaction to the murder of Jamal Khashoggi, Rheinmetall announced that it would sue the government for loss of revenue.¹¹² In December 2019, a German court ruled in favour of Rheinmetall's subsidiary Rheinmetall Military Vehicles due to a formal error in the federal government's export ban and lifted the export ban.¹¹³
- Despite a UN embargo, Rheinmetall in 2017 committed to the military of the UAE to provide an upgrade for MLG 27 guns on a warship stationed in Eritrea. The UAE military use the base in Eritrea for the war in Yemen and the related sea blockade. Since 2009 and until November 2018, Eritrea was under a UN ban due to the country's support of terrorists in neighbouring countries. Until March 2019, Section 74 of the German Foreign Trade Ordinance even prohibited the "transit" of armaments through Eritrea.¹¹⁴ Rheinmetall escaped further investigations by claiming that the upgrades were performed in international waters.¹¹⁵
- Rheinmetall has several subsidiaries operating in Switzerland. Among them is RWM Schweiz, a developer and manufacturer of medium calibre ammunition for land, air and naval applications, including anti-aircraft rounds.¹¹⁶ Rheinmetall Air Defence manufactures a range of air defence and anti-aircraft systems. It also offers drone defence systems.¹¹⁷ In 2018, five Rheinmetall GDM-008 naval gun systems produced by RWM Schweiz were ordered for delivery to Saudi Arabia.¹¹⁸ Kuwait, which is part of the Saudi-led coalition in Yemen, received orders of Rheinmetall Schweiz's Skyguard Air Defence System and firecontrol radar since 2017.¹¹⁹

4

Conclusions

The assessment of the policies of Credit Suisse, SNB and UBS in relation to the development, production and trade of arms results in insufficient scores for all three banks. The policy scores are summarised in Table 11.

Table 11 Policy scores for the arms policies of Credit Suisse, SNB and UBS

Assessment category	Credit Suisse	SNB	UBS
Transparency and accountability	0.6	0.6	0.6
Controversial weapons and dual-use goods	2.5	3.1	2.5
Controversial arms trade	0.0	0.0	0.0
Total	3.1	3.8	3.1

The banks disclose documents outlining their financing and investment policies, including the requirements and guidelines relating to the arms industry. However, the policies are often only summaries, and do not provide a full picture of the rules and procedures for dealing with the arms industry. In some instances, the scope of the policies is not precisely defined, and may leave room for interpretation pertaining to exclusion criteria.

To a certain extent, all three financial institutions have policies in place to prevent financing of the development and production of, and trade in controversial weapons. All three banks have strict exclusion policies preventing the financing of, or investment in, companies involved in the development, manufacture and purchase of anti-personnel mines and cluster munitions. However, in their investments for clients, Credit Suisse and UBS only apply these exclusions for their actively managed funds, not their passively managed or index funds.

The policies on NBC weapons are less strict. The policies of Credit Suisse and UBS are limited to the exclusion of direct financing of the development, manufacture, and purchase of NBC weapons. Given the restrictive definition of direct financing in the Swiss War Material Act, on which the banks base their policies, the scope of these exclusions is effectively limited to only a small part of their corporate credit activities. The commercial banks' policies are moreover not applied to their investments (either for their proprietary assets or for the account of clients). SNB's policy, on the other hand, is limited because it only excludes the production but does not mention aspects such as development and maintenance of or trade in NBC weapons. In addition, SNB only excludes manufacturers of nuclear weapons if they are producing nuclear weapons for countries outside the UN Nuclear Proliferation Treaty.

Overall, the arms policies of the three financial institutions hardly go beyond any of the minimum requirements of the Swiss Federal Act on War Material. None of the three banks has public policies on other forms of controversial weapons, such as Lethal Autonomous Weapons Systems (LAWS), or a public explanation of its approach towards dual-use goods. In addition, their public policies do not tackle controversial arms trading.

The analysis of the financing practice found that Credit Suisse, SNB and UBS financed 32 of the 43 arms companies in the company selection. Credit Suisse and UBS in the form of credit and investment, SNB only through investment.

The three Swiss financial institutions provided credit to six of the 43 arms companies with a total value of US\$ 4.4 billion (see Table 12). Credit Suisse provided the largest amount.

Table 12 Credit provided to selected arms companies (Jan. 2018 – Sep. 2020, US\$ mln)

Financial institution	Loans	Underwriting	Total
Credit Suisse	1,443	2,325	3,769
SNB	-	-	-
UBS	628	-	628
Total	2,071	2,325	4,396

Note: All loans, bond and share issuances closed from 1 January 2018; all historical loans maturing after 1 October 2019.
Sources: Refinitiv (2020), 'Loans, bond and share issuances of selected companies', viewed in September 2020; Bloomberg (2020), 'Loans, bond and share issuances of selected companies', viewed in September 2020.

The consolidated amount of credit provided by Credit Suisse and UBS represents 97% of the total credit provided by Swiss financial institutions to the selected arms companies. The research found one other minor Swiss credit provider. The identified global credit provisions to the selected companies have a total value of US\$ 466 billion. The share of Credit Suisse and UBS in these global credit provisions amounts to 0.9%.

The three Swiss financial institutions invested in securities of 32 of the 43 arms companies, with an investment value of US\$ 8.9 billion (see Table 13). UBS invested the largest amount.

Table 13 Investments in selected arms companies (Sep. 2020, at most recent filing date, US\$ mln)

Group	Bonds	Shares	Total
UBS	317	5,267	5,584
SNB	-	1,957	1,957
Credit Suisse	107	1,289	1,395
Total	424	8,512	8,936

Sources: Refinitiv EMAXX (2020), 'Bondholders of selected companies', viewed in September 2020; Refinitiv (2020), 'Shareholders of selected companies', viewed in September 2020.

The research found in total 113 Swiss financial institutions that invest in the selected 43 arms companies, with a total investment value of US\$ 10.8 billion. UBS, SNB, and Credit Suisse are the three largest investors, with a share of 82% of the Swiss investment total. The top 20 of Swiss investors is presented in Appendix 2 (Table 15). The identified global investments in the 43 arms companies of the company selection have a total value of US\$ 656 billion. The share of Credit Suisse, SNB, and UBS in the identified global investments in the selected arms companies amounts to 1.4%.

The assessment of the policies and practices of Credit Suisse, SNB and UBS in relation to the global arms industry leads to the formulation of several recommendations. The banks should develop and publish comprehensive exclusion policies on controversial arms development, production, and trade. The policy should be comprehensive in that it should apply to all group subsidiaries and geographies and to all financial services, credits, and investments, including importantly investments managed by external asset managers and index funds.

The policy should as a minimum exclude any investments in, or financing of, companies involved in the production of controversial weapons. Moreover, in relation to arms trade, the policy should exclude companies that trade weapons and military goods with countries that:

- are under a UN or EU arms trade embargo;
- are unfree, that is authoritarian regimes and regimes involved in severe violations of human rights;

- where a significant risk exists that the weapons will be used to violate human rights;
- are involved in armed conflict;
- are failed or fragile states;
- are sensitive to corruption;
- spend a disproportionate part of their budget on arms purchase and consequently see poverty alleviation being compromised by military expenditure.

The banks should end current exposure to companies involved in the production of controversial weapons and in controversial arms trade and send a clear message to the relevant company, containing the precise reasons for ending the financial involvement.

Transparency on the policy approach should be created by fully publishing the group's policies on controversial arms. Moreover, the corresponding exclusion list containing the companies involved in controversial arms development, production and trade should be publicly available. This provides clarity about the implementation of the policy and enables customers to make well-informed decisions. The companies included in this analysis only represent a selection of actors involved in controversial arms production and trade. The banks should apply screening throughout their entire investment universe to exclude financing to other relevant arms companies.

The policy should not be constrained to national laws or UN or EU embargoes. Such laws and bans cannot substitute the own responsibility to avert investments in, or financing of, controversial arms companies. Despite the legality of arms deals, they may be linked to human rights violations by governments involved in conflicts, or in fragile, corrupt, or impoverished states. Therefore, a comprehensive methodology to assess and identify which producers are involved in controversial arms production and to which countries arms trade can be considered controversial should be developed and transparently implemented.

In the case where a bank chooses engagement to try to influence a company, the bank should provide a public account of why this strategy is considered to be successful and give regular updates on the process. There should be a clearly defined and limited timeframe for bringing about changes that can be seen as improvements in line with the bank's policies.

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Appendix 1 Scores for arms policies of Credit Suisse, SNB and UBS

Table 14 lists the final policy scores of arms policies of the three financial institutions.

Table 14 Scores for assessment criteria for arms policies of Credit Suisse, SNB and UBS

No.	Assessment criterion	Credit Suisse	SNB	UBS
	Policy score	3.1	3.8	3.1
	<i>Transparency and accountability</i>			
1	The financial institution has published its policy regarding investment and financing.	1.0	1.0	1.0
	<i>Controversial weapons and dual-use goods</i>			
2	Use, production, development, maintenance, testing, stockpiling of and trade in anti-personal landmines, including key components of landmines, is unacceptable.	1.0	1.0	1.0
3	Use, production, development, maintenance, testing, stockpiling of and trade in cluster munitions, including key components of cluster munitions, is unacceptable.	1.0	1.0	1.0
4	Use, production, development, maintenance, testing, stockpiling of and trade in nuclear weapons, including key components of nuclear weapons, in or to countries that have not ratified the Non-proliferation Treaty is unacceptable.	0.5	1.0	0.5
5	Use, production, development, maintenance, testing, stockpiling of and trade in nuclear weapons, including key components of nuclear weapons, is unacceptable	0.5	0.0	0.5
6	Use, production, development, maintenance, testing, stockpiling of and trade in chemical weapons, including key components of chemical weapons, is unacceptable.	0.5	1.0	0.5
7	Use, production, development, maintenance, testing, stockpiling of and trade in biological weapons, including key components of biological weapons, is unacceptable.	0.5	1.0	0.5
8	Use, production, development, maintenance, testing, stockpiling of and trade in lethal autonomous weapons systems (LAWS), including components designed for LAWS, is unacceptable.	0.0	0.0	0.0
9	Goods that are essential for military purposes, but that can also be used for civilian products ('dual-use' goods), are considered as military goods when they have a non-civilian purpose.	0.0	0.0	0.0
	<i>Controversial arms trade</i>			
10	Supply of arms and weapon systems, military transport systems, and other military goods to countries that are under a United Nations or relevant multilateral arms embargo, is unacceptable.	0.0	0.0	0.0
11	Supply of arms and weapon systems, military transport systems, and other military goods is unacceptable if there is an overriding risk that the arms will be used for serious violation of international human rights and humanitarian law.	0.0	0.0	0.0
12	Supply of arms and weapon systems, military transport systems, and other military goods to countries that severely violate human rights, is unacceptable.	0.0	0.0	0.0
13	Supply of arms and weapon systems, military transport systems, and other military goods to parties involved in conflict is unacceptable, unless to parties acting in accordance with a UN Security Council resolution.	0.0	0.0	0.0
14	Supply of arms and weapon systems, military transport systems, and other military goods to countries that are sensitive to corruption, is unacceptable.	0.0	0.0	0.0

No.	Assessment criterion	Credit Suisse	SNB	UBS
Policy score		3.1	3.8	3.1
15	Supply of arms and weapon systems, military transport systems, and other military goods to countries having a failed or fragile state, is unacceptable.	0.0	0.0	0.0
16	Supply of arms and weapon systems, military transport systems, and other military goods to countries that spend a disproportionate part of their budget on purchases of arms, is unacceptable.	0.0	0.0	0.0

Appendix 2 Overview of Swiss investors in selected arms companies

Table 15 Top 20 Swiss investors in selected arms companies (Sep. 2020, at most recent filing date, in US\$ mln)

Financial institution	Bonds	Shares	Total
UBS	317	5,267	5,584
SNB	-	1,957	1,957
Credit Suisse	107	1,289	1,395
Pictet	75	338	413
Vontobel	40	193	233
Julius Bär	-	211	211
Zürcher Kantonalbank	53	152	205
Swiss Re	154	1	154
Edmond de Rothschild	12	98	109
Chubb	95	-	95
GAM Holding	11	64	76
Helvetia	3	55	57
Lombard Odier	9	38	46
Swiss Life	4	36	39
EFG International	1	17	18
Pharus Holding	1	16	17
Banque Cantonale Vaudoise	-	12	12
Aargauische Kantonalbank	-	11	11
Alatus Capital	-	10	10
Cape Capital AG	-	9	9
<i>Other Swiss investors</i>	30	158	187
Total	911	9,929	10,839

Sources: Refinitiv EMAXX (2020), 'Bondholders of selected companies', viewed in September 2020; Refinitiv (2020), 'Shareholders of selected companies', viewed in September 2020.

Profundo

Research & advice

Radarweg 505
1043 NZ Amsterdam
The Netherlands
+31-20-8208320
profundo@profundo.nl
www.profundo.nl